REMARKS / ARGUMENTS

The disclosure is objected because of the following informalities:

The Examiner also submits that under cross references to related applications, page 1 – [01] and [08], the CIP application status needs to be updated. The Applicant has amended paragraphs [01] and [08] of the specification to include updated related CIP application filing dates. The Applicant therefore respectfully submits that the specification objections are in compliance.

The present application includes pending claims 1-25, all of which have been rejected under 35 U.S.C. § 103(a). The Applicant respectfully submits that the original claims define patentable subject matter and request reconsideration.

REJECTION UNDER 35 U.S.C. § 103

In order for a *prima facie* case of obviousness to be established, the Manual

of Patent Examining Procedure ("MPEP") states the following:

> First, there must be some suggestion or motivation, either in
> the references themselves or in the knowledge generally
> available to one of ordinary skill in the art, to modify the
> reference or combine the teaching. Second, there must be a
> reasonable expectation of success. Finally, the prior art
> reference (or references when combined) must teach or
> suggest all the claim limitations. The teaching or suggestion
> to make the claimed combination and the reasonable
> expectation of success must both be found in the prior art,
> and not based on applicant's disclosure.

See MPEP at § 2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir.

1991) (emphasis added). Further, MPEP § 2143.01 states that "the mere fact that

references can be combined or modified does not render the resultant combination

obvious unless the prior art suggests the desirability of the combination," and that

"although a prior art device 'may be capable of being modified to run the way the

apparatus is claimed, there must be *a suggestion or motivation in the reference* to

do so'" (citing In re Mills, 916 F.2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990)).

Moreover, MPEP § 2143.01 also states that the level of ordinary skill in the art

cannot be relied upon to provide the suggestion...," citing Al-Site Corp. v. VSI Int'l

Inc., 174 F.3d 1308, 50 USPQ 2d 1161 (Fed. Cir. 1999). Additionally, if a *prima*

facie case of obviousness is not established, the Applicant is under no obligation

to submit evidence of nonobviousness.

>The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

I. The Proposed Combination of Romero and Garnett et al. Does Not Render Claims 1-25 Unpatentable

The Applicant turns to the rejection of claims 1-25 under 35 U.S.C. § 103(a) as being unpatentable over Romero (U. S. Pub. No. 2004/0054780) in view of Garnett et al. (US Patent No. 7,032,037).

>MPEP 2131 states that "[a] claim is anticipated only if **each and every element** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *See* MPEP at 2131 (internal citation omitted). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." *See id.* (internal citation omitted).

A. Independent Claim 13 is Not Unpatentable Over Romero In View Of Garnett et al.

With regard to the rejection of independent claim 13 under 103(a), the Applicant submits that the combination of Romero and Garnett et al. does not teach or suggest at least the limitations of "wherein said blade server manager allocates data received from said external network to each blade server **based on embedded capacity utilization data** transmitted by each blade server to the blade server manager **that is embedded in spare link bandwidth** on said

interface between the blade server manager and each of said blade servers" as recited by the Applicant in the independent system claim 13.

With respect to claims 13-15 and 23 the Examiner in the Office Action page 4 states that Romero teaches a blade server architecture but concedes that, "**Romero does not expressly disclose the capability to perform blade server load balancing functions**." In order to satisfy this deficiency, the Examiner looks to Garnett and states in the Office Action on page 5:

> "The server blade can be configured as a field replaceable unit. This arrangement provides a load balancer module configured to take the place of a standard server blade within a modular computer system to provide a load balancing service to that modular computer system ...". (See Garnett col 2, lines 5 plus)
> "Moreover, a blade server is typically equipped with a common management control module for controlling all the operations of the multiple server modules and their shared resources in the blade server. Blade server configurations are particularly efficient because each of the blade servers share centralized resources within the chassis such as fans, power supplies, Ethernet switching, and server management hardware. With respect to server management, a unified management module ("UMM") is configured to perform central management functions for the entire cluster of blade servers."

Firstly, the Applicant submits that Garnett et al. does not teach or suggest a blade server with load balancing where "the blade server manager allocates data received from said external network to each blade server **based on embedded capacity utilization data** transmitted by each blade server to the blade server

manager". Instead, Garnett teaches a Load balance algorithm to a server based on the "allocating new connections to available servers in a round robin system". Specifically Garnett teaches:

> "The most simple load balancing algorithm is a "round robin" system whereby a load balancer **allocates new connections** according to a circular list of available servers. Thus a first incoming new connection is a **allocated to a given server and each new connection received** thereafter is allocated to the next server in the list, returning to the first server when the end of the list is reached" (See Garnett col 32, lines 6-12)

Therefore, Garnett's teaching of allocating to a server based on "each new connection received" is different than the Applicant's teaching of "based on embedded capacity utilization data transmitted by each blade server to the blade server manager" as recited in the independent claim 13.

Secondly, the Applicant has reviewed Romero and Garnett and respectfully submits that neither Romero nor Garnett, nor the combination of Romero and Garnett teaches or suggests using "**embedded in spare link bandwidth on said interface** between the blade server manager and each of said blade servers"

Therefore, the Applicant respectfully submits that the combination of Romero and Garnett does not teach or disclose at least the limitations of "wherein said blade server manager allocates data received from said external network to each blade server **based on embedded capacity utilization data** transmitted by each blade server to the blade server manager that is **embedded in spare link**

bandwidth on said interface between the blade server manager and each of said blade servers" as recited by the Applicant in the independent system claim 13.

Accordingly, the Applicant submits that the combination of Romero and Garnett does not establish a prima facie obviousness rejection to independent claim 13 and the Applicant respectfully request that the rejection of independent claim 13 under 35 USC 103(a) be withdrawn. Furthermore, The Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of claim 13 should such a need arise.

B.   Rejection of dependent Claims 14-15, 23

With regard to dependent claim 14, the Applicant submits that the Examiner conceded that Romero does not teach a load balance algorithm. The Applicant has earlier submitted with respect to claim 13 that Garnett teaches a load balancing algorithm based on the number of connections connected to the servers (see Garnett et al. col 32, lines 6-12). Therefore, the Applicant submits that **neither Romero nor Garnett, nor the combination of Romero and Garnett teaches or suggests "said embedded capacity utilization data information",** and as a result, **neither Romero nor Garnett teaches or suggests that the "said embedded capacity utilization data representing blade server CPU percent utilization"** as recited in claim 14 by the Applicant.

Likewise, since Garnett teaches a load balancing algorithm based on the number of connections connected to the servers (see Garnett et al. col 32, lines 6-12),the combination of Romero and Garnett does not teach nor suggests **"said embedded capacity utilization data represents blade server interrupt utilization"** as recited in claim 15 by the Applicant.

Since Garnett teaches a load balancing algorithm based on the number of connections connected to the servers (see Garnett et al. col 32, lines 6-12), the combination of Romero and Garnett does not nor suggests "wherein said load balancing algorithm utilizes said **embedded** capacity utilization data" as recited in the Applicant's claim 23. Therefore, the combination of Romero and Garnett et al. does not render claims 14 and 23 obvious and are allowable.

Additionally, the dependent claims 14-15 and 23 depend from independent claim 13 and are, consequently, also respectfully submitted to be allowable for at least the same rationale discussed above with respect to independent claim 13. Therefore, the Applicant respectfully request that the rejection of dependent claims 14-15 and 23 under 35 USC 103(a) be withdrawn. Furthermore, the Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of claims 14-15 and 23 should such a need arise.

C.   Rejection of dependent Claims 16-19

The Applicant submits that claims 16-19 depend from independent claim 13

and is, consequently, also respectfully submitted to be allowable for at least the

same reasons discussed above with respect to claim 13 and respectfully requests

that the rejection of dependent claims 16-19 under 35 USC 103(a) be withdrawn.

Furthermore, the Applicant reserves the right to argue additional reasons beyond

those set forth herein to support the allowability of claims 16-19 should such a

need arise.

D.   Rejection of dependent Claims 20-22, 24-25

The Examiner states that:

"claims 20-22, 24-25, Garnett further teaches in Fig. 15 a
functional block diagram showing the external connectivity of
the shelf in Fig. 2, in which Workload distribution
management (load balancing) provides operational efficiency
benefits to server systems where more than one server is
utilized. Load balancing is the process of distributing new
connections to a group of servers between those servers in
a controlled fashion.   By means of such controlled
distribution of new connections, the speed of service
experienced by a requesting computer can be increased.
Load balancing algorithms can work in a variety of ways to
attempt to distribute new connections most efficiently. The
most simple load balancing algorithm is a "round robin"
system whereby a load balancer allocates new connections
according to a circular list of available servers. Thus a first
incoming new connection is allocated to a given server and
each new connection received thereafter is allocated to the
next server in the list, returning to the first server when the
end of the list is reached (col lines 4 plus)." (See Office
Action page 6.)

Regarding claim 20, the Applicant has carefully read the pertinent sections of Romero and Garnett and respectfully submits that the combination of Romero and Garnett does not teach or disclose "the blade server utilization information is **embedded in frame alignment** information."

Regarding claim 21, the Applicant has carefully read the pertinent sections of Romero and Garnett and respectfully submits that the combination of Romero and Garnett et al does not teach or disclose "the embedded capacity information is represented with **at least two symbols.**"

Regarding claim 22, the Applicant has carefully read the pertinent sections of Romero and Garnett and respectfully submits that the combination of Romero and Garnett does not teach or disclose "the embedded capacity information is represented with **expanded control characters**".

Regarding claim 24, the Applicant has carefully read the pertinent sections of Romero and Garnett and respectfully submits that the combination of Romero and Garnett et al does not teach or disclose "said capacity utilization data is **embedded in the inter packet gap**".

Regarding claim 25, the Applicant has carefully read the pertinent sections of Romero and Garnett and respectfully submits that the combination of Romero and Garnett et al does not tech or disclose "said capacity utilization data is **embedded in the control words bounding a data word**".

Therefore, the combination of Romero and Garnett does not render claims 20-22-and 24-25 obvious and are allowable and the Applicant respectfully requests that the rejection of dependent claims 20-22-and 24-25 under 35 USC 103(a) be withdrawn. Additionally, the dependent claims 20-22 and 24-25 depend from independent claim 13 and are, consequently, also respectfully submitted to be allowable for at least the same reasons discussed above with respect to claim 13.

E.   Rejection of Claims 1-12

With respect to claims 1-12, the Examiner in the Office Action page 7 states that:

> "they are method claims corresponding to the apparatus claims 13-25 as discussed with respect to claims 13-25." Also, the Examiner submits that "One skilled in the art of communications would recognize the need for a load balancing in a multi server platform, and would apply Garnett's novel use of the blade server load balancing algorithm into Romero's system and method for automatically allocating computer resources of a rack and blade computer assembly. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the inventions was made to apply Garnett's server blade for performing load balancing functions into Romero's dynamic adaptive server provisioning for blade architectures with the motivation being to provide a system and method to provide blade server load balancing."

The Applicant submits that the independent claim 1 and dependent claims 2-12 are similar in many respects to the system claim 13-25 which are allowable at least for the lack of the limitations of "**receiving capacity utilization information**

embedded in spare link bandwidth from a plurality of blade servers operably coupled to the blade server manager." as recited by the Applicant in claim 1. Furthermore, the Applicant submits that Romero and Garnett also lack the teaching of "the **embedded capacity utilization data** information (Load balance algorithm) representing **blade server CPU percent utilization"** as recited in claim 2 (and argued in claim 14).

Therefore, the Applicant respectfully submits that claims 1-12 are also allowable for at least the same rationale discussed above with respect to claims 13-25 and the Applicant respectfully requests that the rejection of dependent claims 1-12 under 35 USC 103(a) be withdrawn. The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 1-12.

CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-25 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Attorney at (312) 775-8093.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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